

Atty Dkt No. 28955.4021  
Serial No.: 10/522,546

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REMARKS

Claims 1-2 and 5-15 remain herein. Claims 3 and 4 have been cancelled without prejudice. Claims 1, 2, 9, and 13 have been amended. New claim 15 has been added. Support for the amendments and the new claim can be found throughout the specification (see, e.g., page 5, lines 1-4; page 4, lines 16-18; compounds CH2 to CH4, CH11 to CH24, and CH26 to CH28 at pages 7 and 9-12; and original claims 3 and 4).

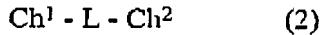
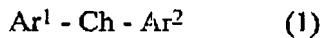
1. The Office Action objected to the insufficiency of descriptive limits for the connecting groups L and  $L^1$  to  $L^3$ . Claims 1 and 2 have been amended to address this objection.

2. The Office Action pointed to a typographical error in claim 2 of the Preliminary Amendment. Claim 2 has been amended to address this objection.

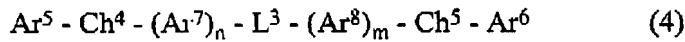
3. Claims 9 and 13 were rejected under 35 U.S.C. § 112, second paragraph for indefiniteness. Claims 9 and 13 have been amended to moot this rejection.

4. Claims 1-9 and 14 were rejected under 35 U.S.C. § 102(b) over Shi et al. U.S. Patent 5,935,721. The Office Action states that Applicants' claimed compounds read on Shi formula (1).

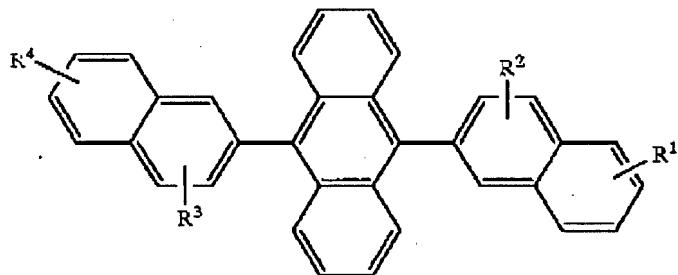
Applicants' claims 1 and 2 disclose an oligoarylene derivative represented by the general formula (1), (2), (3), or (4):



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wherein  $Ch$ ,  $Ch^1$  to  $Ch^5$  are each independently chrysene, triphenylene, or perylene group and  $Ar^1$  to  $Ar^8$  are each independently aryl or arylene groups having 5 to 30 nuclear atoms. Shi formula (1) has the following structural formula:

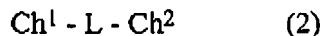
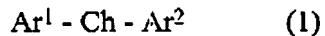


Given the presence of the anthracene ring in the center of Shi formula (1), applicants' claimed compounds could read on Shi formula (1) only in the case of applicants' formula (4) and only when either of applicants'  $Ar^7$  or  $Ar^8$  groups is an anthracene ring and when both  $Ch^4$  and  $Ch^5$  are perylene. Even then, however, applicants' claimed  $Ar^5$  and  $Ar^6$  groups which are respectively linked to applicants' claimed groups  $Ch^4$  and  $Ch^5$  are not disclosed by Shi formula (1). Thus, Shi does not disclose all elements of any of applicants' claims 1,2, 5-9, and 14, and is not a proper basis for a rejection under 102(b). Applicants respectfully request reconsideration and withdrawal of this rejection.

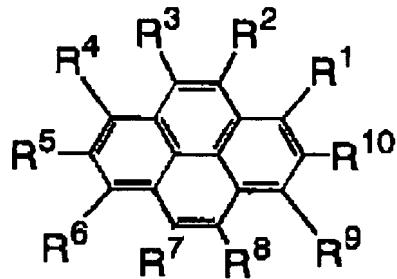
5. Claims 1, 3, 5, 7-9 and 14 were rejected under 35 U.S.C. § 102(b) over Kohama et al. Japanese Patent Publication 2002-063988. The Office Action states that Applicants' claimed compounds read on Kohama formula (2).

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Applicants' claim 1 discloses an oligoarylene derivative represented by the general formula (1) or (2):



wherein  $\text{Ch}$ ,  $\text{Ch}^1$ , and  $\text{Ch}^2$  are each independently chrysene, triphenylene, or perylene group, and  $\text{Ar}^1$  and  $\text{Ar}^2$  are each independently an aryl group having 5 to 30 nuclear atoms. Kohama formula (2) has the following structural formula:

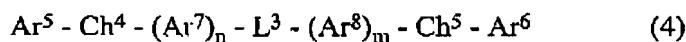
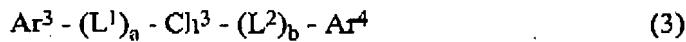
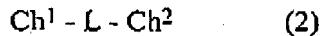
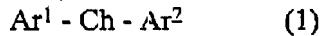


Given that applicants'  $\text{Ch}$ ,  $\text{Ch}^1$ ,  $\text{Ch}^2$ , and  $\text{L}$  groups cannot be pyrene, applicants' claimed compounds could read on Kohama formula (2) only in the case of applicants' formula (1) and only when applicants'  $\text{Ar}^1$  or  $\text{Ar}^2$  groups are pyrene. Even then, however, Kohama formula (2) fails to disclose applicants'  $\text{Ch}$  group that is in the center of applicants' formula (1) and that is either a chrysene, triphenylene, or perylene group. Thus, Kohama does not disclose all elements of any of applicants' claims 1, 3, 5, 7-9, and 14, and is not a proper basis for a rejection under 102(b). Applicants respectfully request reconsideration and withdrawal of this rejection.

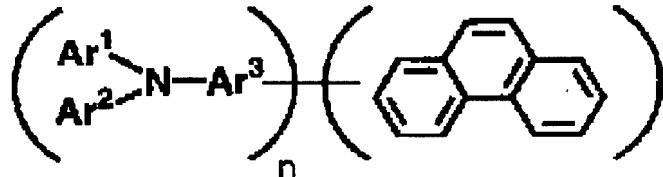
6. Claims 1-10 and 12-14 were rejected under 35 U.S.C. § 102(b) over Maki et al. Japanese Patent Publication 2000-012229. The Office Action states that Applicants' claimed compounds read on Maki formula (1).

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Applicants' claims 1 and 2 disclose an oligoarylene derivative represented by the general formula (1), (2), (3), or (4):



wherein Ch, Ch<sup>1</sup> to Ch<sup>5</sup> are each independently chrysene, triphenylene, or perylene group and Ar<sup>1</sup> to Ar<sup>8</sup> are each independently aryl or arylene groups having 5 to 30 nuclear atoms. Maki formula (1) has the following structural formula:



Maki formula (1) and the corresponding exemplified compounds do not disclose applicants' claimed Ch, Ch<sup>1</sup> to Ch<sup>5</sup> groups which are each independently chrysene, triphenylene, or a perylene group. Thus, Maki does not disclose all elements of any of applicants' claims 1,2, 5-10 and 12-14 and is not a proper basis for a rejection under 102(b). Applicants respectfully request reconsideration and withdrawal of this rejection.

7. Claim 10 was rejected under 35 U.S.C. § 103(a) over Shi '721. Claim 10 depends from independent claim 1.

As discussed above, Shi does not disclose all elements of applicants' claim 1. Further, Shi discloses nothing that would have suggested applicants' claimed invention to one of ordinary

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skill in the art. There is no disclosure or teaching in Shi, or otherwise in this record, that would have suggested the desirability of modifying any portions thereof effectively to anticipate or suggest applicants' presently claimed invention. Applicants respectfully request reconsideration and withdrawal of this rejection.

For the foregoing reasons, all claims 1-2 and 5-15 are now fully in condition for allowance, which is respectfully requested. The PTO is hereby authorized to charge or credit any necessary fees to Deposit Account No. 19-4293. Should the Examiner deem that any further amendments would be desirable in placing this application in even better condition for issue, he is invited to telephone Applicant's undersigned representative.

Respectfully submitted,



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